

## **AIAD #10847**

Research Opportunity: Cadet

### **ORGANIZATION/PROJECT SPONSOR**

Organization: ARL-ARO

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Location of Sponsoring Directorate or Division: Research Triangle Park, NC

### **PROJECT**

**Title:** Counter-Insurgency Combat Modeling

**Description:** The United States military is considered the most technologically advanced and powerful fighting force in the world. But, as is always the case when a small, unorganized force is engaged with a larger conventional force, asymmetric warfare can wreak havoc on the less flexible. Terrorism as used by insurgents is a protean, unstable, extremely flexible force. As Desert Storm and the Iraqi invasion of 2003 have proven, we must improve upon our ability to defeat an enigmatic foe who meets us not on the battlefield or on the high seas, but in the living rooms, the schools, and the hearts and minds of ordinary people. Many of these engagements are now called hybrid wars, because they begin with a full-spectrum conflict and then revert to a counterinsurgency. In this project, cadets will build upon existing models to analyze the terrorism-counterterrorism (T-CT) dynamic while considering such factors as leadership, promotion, recruitment, resources, operational techniques, cooperation, logistics, security, intelligence, and psychology. The project will use the tenets of FM 3-24 (2006) (*Counterinsurgency* Field Manual) and FM 3-24.2 (2009) (*Counterinsurgency Tactics* Field Manual). Research will be conducted at the Army Research Office in Research Triangle Park, NC.

**ARL/Army Benefit:** This project will give combat modelers an improved model to use to evaluate counterinsurgency tactics and strategy and military-civilian organizational structure to best win future hybrid wars.

**Background Required:** Proficiency with differential equations and Mathematica

**Security clearance required:** None

**Capacity:** One or two

**Duration:** 3 weeks

**Block Preference:** All dates are currently available.